

sepals. SEPALS free, asymmetric, obtuse, 5 mm long. Pl. I, fig. 5: Leaf; fig. 6: Basal branch of inflorescence.

ECUADOR: without exact locality, cultivated August 1970, Hort. Alfred Blass 4 (US, type).

TILLANDSIA PARVIFLORA R. & P. var. EXPANSA L. B. Smith, var. nov. A var. parviflora scapi bracteis longe caudatis, inflorescentia ample tripinnatim paniculata differt.

PLANT flowering 4 dm high. LEAVES to 2 dm long. SCAPE straight, very slender; scape-bracts with sheaths shorter than the internodes but with fine linear blades exceeding them. INFLORESCENCE lax, amply tripinnate; branches mostly ascending. Pl. I, fig. 7: Scape and basal branch.

ECUADOR: without exact locality, cultivated, August 1970, Hort. Alfred Blass 6 (US, type).

VRIESEA MALZINEI E. Morr. var. DISTICHA L. B. Smith, var. nov. A var. malzinei floribus distichis differt.

PLANT an exact match for the typical variety except that the flowers and floral bracts are distichous instead of polystichous. Pl. I, fig. 8: Inflorescence.

MEXICO: CHIAPAS: Mal Paso highway about 23 km north of Ocozocoautla, April 14, 1969, E. W. Greenwood (US, type), cultivated and flowered 19 May 1969, T. MacDougall 814.

In my key to Vriesea (Phytologia 13, no. 2: 84. 1966), this variety would fall in subkey V next to the Brazilian V. gradata. However, this variety is distinguishable by its always erect floral bracts with straight apices, as well as by generally smaller parts.

### HERBARIUM NOTES, III

Lyman B. Smith

In the Gramineae I am indebted to Dra. Cleofe Calderón for constructive criticism in preparing descriptions of new species and to Dr. Thomas R. Soderstrom for access to unpublished keys and help with the literature.

I have received three excellent regional treatments of Gramineae that are proving of great value because of their proximity to southern Brazil. They are:

Arturo Burkart: Flora Ilustrada de Entre Rios (Argentina), Parte II, Gramíneas, pp. I-XV, 1-551, pl. 1-4, map 1, fig. 1-215. 1969.

Angel L. Cabrera: Flora de la Provincia de Buenos Aires, Parte II, Gramíneas, pp. 1-624, fig. 1-160. 1970.

B. Rosengurtt, B. R. Arrillaga de Maffei & P. Izaguirre de Artucio: Gramíneas Uruguayas, pp. 1-491, fig. 1-192. 1970.

My work on the "Flora Ilustrada Catarinense" has been greatly facilitated by the staff of the Staatsinstitut für allgemeine Botanik und Botanischer Garten of Hamburg. Through their hospitality and loans it has been possible to study the rich collec-

tions of *Ule* from Santa Catarina in all of the families that I am preparing for publication.

## GRAMINEAE

AGROSTIS LONGIBERBIS Hack. ex L. B. Smith, nom. nov. *Calamagrostis capillaris* Nees ex Steud. Nom. Bot. ed. 2. 1: 249. 1840, nom. nud.; Syn. Pl. Gram. 188. 1854; Doell in Mart. Fl. Bras. 2, pt. 3: 55. 1878, non L. 1753. *Agrostis longiberbis* Hack. ex Usteri, Fl. Umgebung Stadt São Paulo 152. 1911, nom. nud.

PLANT densely caespitose, annual. CULMS 0.5 mm thick, glabrous LEAVES glabrous; ligules membranaceous, short; blades filiform-attenuate, flat or more often complicate, 2 mm wide. INFLORESCENCE lax but with the ends of the branches subdense, 8-30 cm long. GLUMES lanceolate, subequal, 2-3 mm long, the lower scabrous on the keel. LEMMA lanceolate, bidentate, 1.6 mm long, glabrous except for the long-bearded callus, with or without a very short awn. PALEA lacking. Pl. I, fig. 1: Panicle; fig. 2: Floret; fig. 3: Lemma.

BRAZIL: without locality, Sellow s n (LE(?), type; B, US, isotypes). MINAS GERAIS: Serra do Itatiaia, Mar 1894, Ule 84 (US); open summit, Serra da Gramma, 1700 m, April 1925, Chase 9557 (US) RIO DE JANEIRO: Rezende: grassy summit, base of Agulhas Negras, Serra do Itatiaia, 1950, Segadas-Vianna & Brade 5022 (R, US). SÃO PAULO: Pinheiros, 16 Dec 1906, Usteri in Herv. da Esc. Polyt. de S. Paulo 49 (SP, US, det. Hackel); Alto da Serra, Nov 1910, Luederwaldt in Mus. Paulista 678 (SP, US); swale, Campos do Jordão, Serra Mantiqueira, 1570 m, May 1925, Chase 9853 (US); same, moist campo, 1600 m, 9878 (US); same, Feb 1946, Eugenio Leite 3968 (US). PARANÁ: swamp, Ponta Grossa, 30 Jan 1946, Swallen 8364 (US); low wet open ground, Estação Experimental, Curitiba, 13 Feb 1946, Swallen 8550 (US); Mun. Piraquara: swamp, Rio Bracajuvava, 18 Feb 1961, Hatschbach 7816 (HH, US). SANTA CATARINA: Mun. Campo Alegre: campo, Morro do Iquererim, 1300 m, 5 Feb 1958, Reitz & Klein 6483 (HBR, US); Mun. Curitibanos: swamp, 14 km west of Curitibanos on the road to Campos Novos, 850-950 m, 5 Dec 1956, Smith & Klein 8299 (HBR, R, US). RIO GRANDE DO SUL: without locality, 1935, Orth 1932 (US); dry campo, Cambará, 23 Jan 1948, Rambo s n (PACA 36481, US); swampy thicket, Serra da Rocinha, near Bom Jesus, 3 Feb 1953, Rambo s n (PACA 53900, 53907, US).

The first mention of *Calamagrostis capillaris* Nees ex Steud. was without description but indicated that Nees took the name from a Trinius manuscript. Hence it seems probable that the type is in Leningrad.

ARISTIDA (Arthratherum) KLEINII L. B. Smith, sp. nov. HERBA perennis, caespitosa, florifera 7-8 dm alta. CULMI stricte erecti, simplices, basi 2 mm diametro, teretes, glaberrimi. FOLIA fere omnia basalia, subtus inter vaginas et laminas paulo incrassata; vaginis auriculatis, longe barbatis; ligulis curtissimis; laminis filiformibus, longe attenuatis, basi 0.7 mm diametro. PANICULA leviter curvata, angusta, subdensa, 15 cm longa; ramis

suberectis, brevibus. GLUMAE lanceolatae, in aristam attenuatae, inaequilongae, inferiore ca 12 mm longa, superiore 8 mm longa. LEMMATA linearia, tubulosa, 7 mm longa; callo late obtuso, dense barbato; columna articulata, 11 mm longa, spiraliter torta; aristis subaequalibus, 20 mm longis. PALEAE parvae, haud carinatae, glabrae. LODICULAE 2, oblongae, ca 1 mm longae. Pl. I, fig. 4: Panicle; fig. 5: Spikelet; fig. 6: Fruit; fig. 7: Callus; fig. 8: Apex of lemma.

BRAZIL: SANTA CATARINA: Mun. São José do Cerrito: campo, 950 m alt, 31 Oct 1963, R. M. Klein 4328 (US, type; HBR, isotype; Mun. Campos Novos: campo, 1000 m alt, 29 Oct 1963, R. M. Klein 4198 (HBR, US).

In Henrard's monograph of *Aristida* (Meded. Rijks Herb. Leiden 58A. 1932), *A. kleinii* would key to the vicinity of *A. royleana* Trin. & Rupr., from which it differs in its smaller panicle, smaller more unequal glumes and broadly rounded callus.

DANTHONIA CONFUSA L. B. Smith, nom. nov. *Cortaderia pungens* Swallen, Contr. U. S. Nat. Herb. 29: 251. 1949, non *Danthonia pungens* Cheeseman, 1906.

Pl. I, fig. 9: Panicle; fig. 10: Spikelet; fig. 11: Floret.

The species appears to be distinct, at least from any Andean or Central American ones. Curiously the original description accurately gives the characters of the genus *Danthonia* while naming it a *Cortaderia*.

MELICA SPARTINOIDES L. B. Smith, sp. nov. HERBA perennis, submetralis, rhizomatibus brevibus horizontalibus robustis pilosis procreans. CULMI recti. FOLIA scaberula; vaginis carinatis; ligulis brevissimis; laminis attenuatis, 12 cm longis, 5 mm latis PANICULA angusta, pauciramosa, 22 cm longa; ramis suberectis, ad 9 cm longis, basi longe sterilibus, dense secundifloris. SPICULAE oblongae, lateraliter compressae, 10 mm longae, 4-florae; floribus fertilibus 2. GLUMAE late convexae, inaequales, scaberulae; gluma inferiore late obovata, 4 mm longa, 5-nervata, omnino scariosa; gluma superiore spatulata, 5.5 mm longa, 7-nervata, herbacea sed late scarioso-marginata. LEMMATA fertilia lanceolata, acuta, ad 6 cm longa, 9-nervata, pilis longis submarginalibus vestita; lemma terminale late obconica, indurata. PALEAE lanceolatae, 4 mm longae, breviter bidentatae. CARYOPSIS ellipsoidea, 2.5 mm longa. Pl. I, fig. 12: Branch of inflorescence; fig. 13: Spikelet.

BRAZIL: SANTA CATARINA: Mun. Capinzal: campo, 7 km southeast of Capinzal, 500-600 m, 28 Feb 1957, Smith & Klein 11954 (US, type; HBR, isotype).

*Melica spartinoides* is distinguished by the combination of a short lower glume and fertile lemmas with long submarginal hairs.

PIPTOCHAETIUM ALPINUM L. B. Smith, sp. nov. HERBA perennis, caespitosa, rhizomatibus brevissimis procreans, ad 3 dm alta. CULMI erecti, simplices, gracillimi, 2-nodes. FOLIA valde paucinervata; vaginis glabris; ligulis membranaceis, haud 1 mm longis; laminis linearibus, acutis, planis vel subconvolutis, 8 cm longis, 1 mm latis, minute ciliatis, alibi glabris. PANICULA laxa, pauciflora, 6 cm longa (sine aristis), basi in foliae

supremæ vagina inclusa. GLUMAE lanceolatae, acutae, superiore majore, 4 mm longa. LEMMA anguste obovatum, 5 mm longum, quam glumas longius, pilis erectis pallide brunneis omnino vestitum; corona curtissima; arista 2 cm longa, breviter pubescente. PALEA breviter cuspidata, lemmatis corpus subaequans. Pl. I, fig. 14: Panicle; fig. 15: Spikelet.

BRAZIL: SANTA CATARINA: Mun. Bom Jardim da Serra: campo, Fazenda da Laranja, 1400 m alt, 10 Dec 1958, Reitz & Klein 7710 (US, type; HBR, isotype).

This dwarf alpine species is most nearly related to P. lasianthum Griseb., but differs in its lemma exceeding the glumes.

#### EUPHORBIACEAE

ACALYPHA ULEANA L. B. Smith & R. J. Downs, sp. nov. HERBA perennis. RADIX centralis, lignosa. CAULES fasciculati, ramosi, ad 20 cm alti, dense albido-hispidi. FOLIORUM stipulis linearibus, 5 mm longis; petiolis brevissimis vel nullis; laminis ovato-ellipticis, acutis, basi subcordatis et 3-nervatis, ad 65 mm longis, 23 mm latis, crenato-serratis, supra viridibus, subtus pallidis, utrinque dense albido-hispidis. INFLORESCENTIAE terminales, ad 2 cm pedunculatae, bisexuales, dense cylindricae; parte masculina terminali, ad 14 mm longa, 2 mm diametro; parte feminea ad 25 mm longa, 5 mm diametro, multiflora; bracteis femineis unifloris, suborbicularibus, 3 mm longis, profunde 4-fidis, pilis rectis et glandulis sessilibus dense vestitis. FLORES femineae sessiles. OVARIUM 3-loculare, hispidum; stylis multifidis. Pl. I, fig. 16: Leaf; fig. 17: Inflorescence; fig. 18: Pistillate bract.

BRAZIL: Santa Catarina: Mun. Bom Jardim da Serra: slopes by source of Rio Capiware, Serra Geral, Feb 1891, Ule s n (HBG, type; photo US).

Acalypha uleana is related to A. phleoides Cav. but differs in its narrower sessile densely white-hispid leaves and fewer-toothed pistillate bracts.